APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,817	02/18/2004	Floyd Backes	160-046	1490

			EXAMINER
34845	7590	11/17/2005	HOLLIDAY, JAIME MICHELE

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ART UNIT	PAPER NUMBER
2686	

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _18 February 2004_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-8_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-8_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _18 February 2004_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1.   The information disclosure statements (IDS) submitted on October 28, 2004,

April 28, 2005, May 27, 2005 and October 4, 2005 have been considered by the

Examiner and made of record in the application file.

Specification

2.   The disclosure is objected to because of the following informalities:

a) On **page 3 line 15**, replace "Figure 8" with --Figures 8A and 8B-- in order to

match drawings;

b) On **page 4 line 17**, replace "Figure 18" with --Figures 18A and 18B-- in order

to match drawings;

c) On **page 6 line 3**, replace "Figure 33" with --Figures 33A and 33B-- in order to

match drawings;

d) On **page 23 line 1**, replace "Figure 8" with --Figures 8A and 8B-- after "to" in

order to match drawings;

e) On **page 34 line 6**, replace "Figure 18" with --Figures 18A and 18B-- after "in"

in order to match drawings.

Appropriate correction is required.

3.   The title of the invention is not descriptive. A new title is required that is clearly

indicative of the invention to which the claims are directed.

The following title is suggested: WIRELESS NETWORK ARCHITECTURE

ALLOWING OPTIMIZED CHANNEL ALLOCATION VIA ACCESS POINT CONTROL.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating
        obviousness or nonobviousness.

6.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

7.   **Claims 1 and 2** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Idnani et al. (Pub # U.S. 2004/0121765 A1) in view of **Eng (Pub # U.S. 2003/0035442**

A1).

Consider **claim 1**, Idnani et al. clearly show and disclose a Session

Initiation Protocol (SIP) proxy user agent (UA) to serve as a gateway between a

SIP core network and a SIP-unaware mobile. The first embodiment of the

present invention includes a radio access network (RAN) **110** and remote units,

such as mobile station (MS) **101**. However, the present invention is not limited to

remote units that are mobile. For example, a remote unit may comprise a

desktop computer wirelessly connected to the radio access network. It is known

in the art that a standard desktop computer has software implantation

capabilities, reading on the claimed "program product for use by a device in a

wireless communications environment," (paragraphs 8 and 10). Communication

system **100** comprises well known entities, such as base sites and SIP

components **120** and **125** (each comprising a wireless network interface (**121**

and **122**) and a SIP proxy UA (**123** and **124**)), and SIP registrar/presence server

130, reading on the claimed "platform dependent logic," (paragraph 11). When

the mobile station begins obtaining service from BS **111** it sends a registration

request message to the SIP component **120**, reading on the claimed "platform

independent logic can communicate with platform dependent logic." This

registration request message is not a SIP message, but rather a registration

message in accordance with the wireless protocol utilized by the mobile station,

reading on the claimed "platform independent logic for passing platform

independent protocol messages between wireless devices, wherein the platform

independent logic is not dependent upon the underlying hardware upon which it

is employed," (paragraph 14). Acting as a proxy user agent for the mobile

station, SIP proxy UA sends a combined registration and event subscription

message for the mobile station to the SIP registrar/presence server. Proxy UAs

are responsible for translating the call control messaging between SIP and the

appropriate wireless protocol, reading on the claimed "platform dependent logic

for use by each wireless device to translate the platform independent protocol

messages into platform dependent commands for execution, the platform

dependent commands being dependent upon the hardware upon which they are

employed," (figure 2 and paragraph 15).

However, Idnani et al. do not specifically disclose that the message sent

from the mobile station and translated by the proxy UA affects channel selection,

power adjustment and load balancing.

In the same field of endeavor, Eng clearly shows and discloses a system

for enabling full service communication between a full-service cable modem

(fsCM) termination system and a plurality of full-service cable modems. Full-

service communications include data, voice and video. A multi-channel full-

service media-access-control (fsMAC) coordinates the access to the shared

upstream and downstream channels. A conventional cable modem termination

system may direct a cable modem to change its upstream channel for traffic load

balancing. The fsCM system **100** consists of illustratively two downstream

channels (DCPC and DPC1). The DCPC **147** carries MAC management

messages, for example, the calibration response MAC message is sent in

response to a calibration request. The calibration response MAC message

structure **700** includes a MAC management header **702**, fsCM service identifier

704, fsMAC domain identifier **706**, upstream channel identifier **708**, timing

adjustment **710**, frequency adjustment **712**, transmit power adjustment **714**,

transmitter pre-equalizer tap coefficients **716**, and re-assigned fsMAC domain

identifier **718**, reading on the claimed "platform independent protocol messages

for controlling channel selection and for causing power adjustment and for load

balancing of wireless devices," (abstract and paragraphs 22, 23, 64, 67 and 111).

Therefore, it would have been obvious to a person of ordinary skill in the

art at the time the invention was made to provide channel selection, power

adjustment and load balancing as taught by Eng in the concept of Idnani et al. in

order to effectively transmit messages among devices in a communication

system.

Consider **claim 2**, Idnani et al., as modified by Eng, disclose the claimed

invention **as applied to claim 1 above**, and in addition, Eng further discloses a

message **700** being sent that identifies an upstream channel as disclosed above,

reading on the claimed "platform independent messages include claim messages used by devices to select a channel on which to communicate," (paragraph 67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a channel identification message as taught by Eng in the concept of Idnani et al. in order to communicate effectively among devices in a communication system.

8.   **Claims 3-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Idnani et al. (Pub # U.S. 2004/0121765 A1)** in view of **Eng (Pub # U.S. 2003/0035442 A1)**, and in further view of **Kallio (Pub # U.S. 2004/0014422 A1)**.

Consider **claim 3**, and **as applied to claim 1 above**, Idnani et al., as modified by Eng, clearly show and disclose the claimed invention except that the messages, reading on the claimed "platform independent messages," sent are Announce messages.

In the same field of endeavor, Kallio clearly shows and discloses an invention that enables terminal devices to efficiently transition from a first access point to a second access point based on service discovery information that is transmitted by the second access point. A terminal device **402** enters a page scan state, where it awaits one or more paging messages. Access point **406** enters a paging mode and transmits one or more paging packets. These paging packets each include an identification number based on the address of terminal device, reading on the claimed "platform independent messages include

Announce messages used by devices to indicate their presence and their

protocol capability to other devices," (figures 8 and 10, paragraphs 13, 133 and

134).

Therefore, it would have been obvious to a person of ordinary skill in the

art at the time the invention was made to include information about the sender of

messages sent as taught by Kallio in the concept of Idnani et al., as modified by

Eng, in order to allow devices to effectively communicate in a communication

system.

Consider **claim 4**, the combination of Idnani et al. and Eng, as modified by

Kallio, disclose the claimed invention **as applied to claim 3 above**, and in

addition, Kallio further discloses the terminal device, which is in page scan mode,

responds to the paging packets, from the access point, by transmitting a packet

that includes its address, reading on the claimed, "platform independent

messages include Bid messages, wherein a sending device sends a Bid

message to a receiving device to indicate that the sending device desires to

communicate in the wireless communications environment via the receiving

device," (paragraph 134).

Therefore, it would have been obvious to a person of ordinary skill in the

art at the time the invention was made to provide a response message to a page

message as taught by Kallio in the concept of Idnani et al., as modified by Eng, in

order to allow devices to effectively communicate in a communication system.

Consider **claim 5**, the combination of Idnani et al. and Eng, as modified by Kallio, disclose the claimed invention **as applied to claim 4 above**, and in addition, Kallio further discloses that the access point receives a packet from terminal device, which includes it address information. In response, the access point transmits a frequency hop synchronization (FHS) packet, reading on the claimed "Accept message," (paragraph 135). The FHS packet is used to pass information that allows terminal device to synchronize with the frequency hopping sequence of access point. Upon receipt of this FHS packet, terminal device transmits a further packet to confirm receipt of the FHS packet. Both terminal device and access point enter into the connection state at this point, reading on the claimed, "platform independent messages include Accept messages, wherein a sending device sends an Accept message to a receiving device in response to a Bid message to indicate that the sending device will allow the receiving device to communicate in the wireless communications environment via the sending device," (paragraph 135).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a confirmation message sent after the response message taught by Kallio in the concept of Idnani et al., as modified by Eng, in order to allow devices to effectively communicate in a communication system.

Consider **claim 6**, the combination of Idnani et al. and Eng, as modified by Kallio, disclose the claimed invention **as applied to claim 5 above**, and in

addition, Idnani et al. further disclose that when the mobile station begins

obtaining service from a base station it sends a registration request message to

SIP component that comprises a proxy UA, which is responsible for translating

the call control messaging between SIP and the appropriate wireless protocol.

The SIP proxy UA then sends a combined registration and event subscription

message for the mobile station to SIP registrar/presence server, reading on the

claimed "platform independent messages include Registration Request

messages, wherein a sending device sends a registration request message to a

receiving device to indicate that the sending device desires to communicate in

the wireless communications environment via the receiving device using a

particular protocol," (paragraphs 14 and 15).

Consider **claim 7**, the combination of Idnani et al. and Eng, as modified by

Kallio, disclose the claimed invention **as applied to claim 6 above**, and in

addition, Idnani et al. further disclose in response to the registration request

message, SIP registrar sends SIP OK message to SIP proxy UA, reading on the

claimed, "platform independent messages include Registration Acknowledge

messages, wherein a sending device sends a Registration acknowledge

message to a receiving device in response to a Registration Request message,"

(paragraph 30). Kallio also further discloses that its system for handovers in

implemented in a Bluetooth environment, which defines a short-range radio

network, reading on the claimed "sending device understands that the receiving

device will communicate in the wireless communications environment using the

Dynamic Radio Control Protocol," (paragraphs 4 and 13).

Therefore, it would have been obvious to a person of ordinary skill in the

art at the time the invention was made to provide a Bluetooth environment as

taught by Kallio in the concept of Idnani et al., as modified by Eng, in order to

allow devices to effectively communicate in a communication system.

Consider **claim 8**, and **as applied to claim 1 above**, Idnani et al., as

modified by Eng, clearly show and disclose the claimed invention except that the

communication is an 802.11 wireless network.

In the same field of endeavor, Kallio clearly shows and discloses that an

operational environment for the system for handovers embodies multiple terminal

devices communicating with access points across various ad hoc networks,

reading on the claimed "the wireless communications environment is an 802.11

wireless network," (paragraph 35). It is known in the art that an 802.11 wireless

network is an ad hoc network.

Therefore, it would have been obvious to a person of ordinary skill in the

art at the time the invention was made to provide an ad hoc wireless network as

taught by Kallio in the concept of Idnani et al., as modified by Eng, in order to

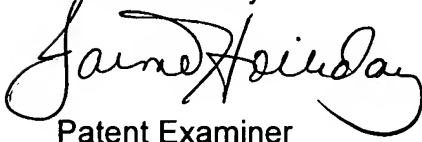allow devices to effectively communicate in a communication system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaime M. Holliday whose telephone number is (571) 272-8618. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jaime Holliday

Patent Examiner

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